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Conference Abstract

Web Applications for Interoperability of Biodiversity Data in France

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Abstract

In the context of the French law for the reconquest of biodiversity (Legifrance 2016), public and private stakeholders must share environmental impact assessment data as open data to the French National Inventory of the Natural Heritage (Muséum national d'Histoire naturelle 2019). In order to achieve this, the Information System for Nature and Landscape (SINP) provided standards and guidelines for protocols, taxonomy, and metadata in order to comply with the FAIR (Findability, Accessibility, Interoperability, Reusability; Wilkinson et al. 2016) concept of data management. However, private institutions, who must run environmental impact assessments, can be confused by the number of technical details and the high level of data literacy needed to comply with these standards. Here, we will present several tools (GeoNature 2019, Natural Solutions 2019) that we are currently developing to facilitate the raw biodiversity data conversion and export using SINP standards (Jomier et al. 2018). Although SINP and Darwin Core (Wieczorek et al. 2012) standards share common concepts and properties, SINP standards focus on data reusability in the framework of French environmental programs, resulting in the creation of specific mandatory attributes (Chataigner et al. 2014). Our tools perform extract, transform and load (ETL) operations as well as RDF (Resource Description Framework) exports using ad-hoc ontology adapted to the specificities of the SINP standard. Finally, we observed that despite the success of the process (after one year, nearly one thousand

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datasets are available on the SINP web platform), several issues still need to be addressed, including data quality issues, which could hamper data reuse by stakeholders.

Keywords

open-data, web, standard, ETL, data management

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